

SDMS Document ID



1001726

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### Background

The following samples were collected by URS Operating Services, Inc. for Quicksilver Analytical and received at the Edgewood Chemical and Biological Forensic Analytical Center on June 05, 2001.

UOS/Quicksilver Sample ID	EC/BFAC Sample ID	Date Received
DT-SO-01	980103-04909	06/05/2001
DT-SO-02	980103-04910	06/05/2001
DT-SO-03	980103-04911	06/05/2001
DT-SO-04	980103-04912	06/05/2001
DT-SO-05	980103-04913	06/05/2001
DT-SO-06	980103-04914	06/05/2001
DT-SO-07	980103-04915	06/05/2001
DT-SO-08	980103-04916	06/05/2001
DT-SO-09	980103-04917	06/05/2001

### Action Taken

The soil samples were extracted and analyzed in accordance with Method AM-087 for the presence of CS (o-chlorobenzylidene malonitrile) and 2-chlorobenzaldehyde. Each 40 gram soil sample was extracted with two 20 milliliter aliquots of methylene chloride and concentrated to 0.50 mL in a turbovap. The methylene chloride was transferred to GC vials and analyzed by gas chromatography/mass spectrometry (GC/MS) in Single Ion Monitoring Mode (SIM).

### Results

The purpose of the analysis was to detect the presence of CS at a concentration greater than 0.0019 µg/g in soil and 2-chlorobenzaldehyde at a concentration greater than 0.0016 µg/g in soil. Analysis of the samples showed two samples with the target analytes at a concentration greater than the detection limit. The results are reported in the following Tables:

**Table I**


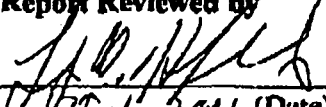
**Results of GC/MS SIM analysis**

Sample ID	CS µg/g	2-chlorobenzaldehyde µg/g	Date Analyzed
Blank	nd	nd	07/02/2001
Laboratory Control Sample	0.014	0.015	07/02/2001
DT-SO-01	nd	nd	07/02/2001
DT-SO-02	nd	nd	07/02/2001
DT-SO-03	0.004	0.005	07/02/2001
DT-SO-04	0.002	0.007	07/02/2001
DT-SO-05	nd	nd	07/02/2001
DT-SO-06	nd	nd	07/02/2001
DT-SO-07	nd	nd	07/02/2001
DT-SO-08	nd	nd	07/02/2001
DT-SO-09	nd	nd	07/02/2001
DT-SO-08 (Matrix Spike)	0.006	0.006	07/02/2001
DT-SO-06 (Matrix Spike Duplicate)	0.007	0.007	07/02/2001

**Table II**

**QA/QC results for GC/MS SIM analysis**

Sample ID	CS %Recovery	2-chlorobenzaldehyde %Recovery	QA/QC Limits
Blank	nd	nd	n/a
Laboratory Control Sample	109	120	20-150%
Matrix Spike	49	52	20-150%
Matrix Spike Dup.	54	55	20-150%
MS/MSD %RPD	10	6	0-25%

<b>Analyst(s) of Record</b>  (Signature) 7/3/01 (Date) <b>Kenneth W. Dockery</b> <b>Senior Chemist (QuickSilver)</b>	<b>Report Reviewed by</b>  (Signature) 7/3/01 (Date) <b>Lynn D. Hoffland, Ph.D.</b> <b>Chief Chemist</b>
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**Report Reviewed by**

 (Signature)  
8 Jul 2001 (Date)

**Richard S. Simak**  
**Designated Authority, Edgewood C/B Forensic Analytical Center**

**Report Approved by**

 (Signature)  
6 July 2001 (Date)

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**Chief, Edgewood C/B Forensic Analytical Center**